Arizona Geological Survey

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Role in renewable energy siting, production, transmission:
As per ARS 27-152, objectives of Arizona Geological Survey are to (paraphrased):
1. Serve as a primary source of geologic information in this state to enhance public understanding of the state's mineral and energy resources.
2. Inform, advise and assist the public in matters concerning the development and use of the mineral and energy resources of this state.
3. Encourage the wise use of the lands and mineral and energy resources of this state toward its development.
4. Provide technical advice and assistance in geology to other state and local governmental agencies engaged in projects in which the mineral and energy resources of the state are involved.
5. Provide technical advice and assistance in geology to industry toward the wise development and use of the mineral, energy, and land resources of this state.

Experience to date:
- 30 years of studies towards geothermal energy exploration and production
- 50 technical reports and maps available online for free download (http://www.azgs.az.gov/geothermal_downloads.shtml)
- Well cores & cuttings library, reference library with 400 geothermal publications
- Technical resource to government and industry

Known future involvement:
- National Geothermal Data System: co-investigator to design and build DOE data network, 2009-2014, (www.geothermaldata.org)
- National Geothermal Data System II: lead agency to deploy data system nationwide and populate it with state-specific data, 2010-2013, DOE grant $17.8 million (http://usgin.org)
- Compressed air energy storage (in salt caverns and underground reservoirs

Fellow agencies:
US Dept. of Energy (DOE)
US Geological Survey (USGS)
Association of American State Geologists (AASG)
Arizona Oil and Gas Conservation Commission (www.azogcc.gov)

Perceived opportunities:
Large potential for ground-loop systems for residential, commercial, and institutional facilities
Modest potential for geothermal electricity
Large potential for direct-use heating

Perceived obstacles:
Arizona does not currently produce electricity from geothermal energy
Arizona soils are ‘too dry’ to support ground-loop heating and cooling systems
Arizona’s young volcanic fields do not have high heat flow values
Ignorance or hostility towards geothermal energy (e.g., HR2944 would ban entry on federal lands in Pima and Santa Cruz counties for geothermal energy)

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